

MAKING GUNS FOR UNCLE SAM'S MEN

Day and Night Forces at Work on Weapons for Fighters.

PRODUCTION IN YEAR'S TIME

Plants for Manufacture of Ordnance Have Increased More Than 90 Per Cent Since Beginning of the War.

From the Committee on Public Information, Washington, D. C.

The foundries of 10 steel plants in the United States are today doing capacity business. Throughout the night the work will go on with slight interruption. The whistles that blow to announce closing time to one army of workers will be a summons to another shift to take its turn. The blast of chimneys will continue to roar, and the glittering white-hot streams of molten metal will flow into the molds. A year ago only two of these sixteen foundries where cannon forgings are now being made were in existence. The foundries at Bethlehem and Midvale represented almost our entire resources for the making of cannon forgings. Today those two plants constitute less than 10 per cent of our total facilities for making such products.

In one year a new industry has been created in this country. It is new not only in the sense that the 14 foundries have been built, but that the processes of manufacture are new. Making gun forgings is different from making steel forgings for any other purpose. The heated steel must be pressed and not hammered. The methods of heat treating the steel, of cooling it, and of annealing the molten metal are all different. Yet, within one year, this new industry has been built up in this country, and today it provides the wherewithal for the carrying out of an artillery program the like of which has not been projected in any other country.

Nor is that all. In more than a score of other factories gun carriages, recoil mechanisms and other parts of artillery are being made. For the making of these parts, new industries have likewise been created. As an instance a new industry was established to manufacture glass of a quality available for use in telescopic sights on cannon. Such glass had never been made in the United States before.

Handicapped at Start.

When we entered the war we were handicapped by a lack of technical knowledge. We had been a peaceful people; we had not trained our scientists and engineers in the art of munitions making. Therefore, we had but one ordnance expert for every 200 in Germany. We went into this war with an ordnance bureau consisting of 97 officers and 820 enlisted men. Not all of those 97 officers were ordnance experts. Some of them were only on detail to the ordnance department. In fact, not more than eight of them were charged with the designing work in the manufacture of artillery. Before a year had elapsed, the ordnance department had grown into an organization of 5,000 officers, 30,000 enlisted men and 20,000 civilian employees. It has undergone a thorough reshaping to adapt itself to the extraordinary new conditions. The ordnance bureau in the first part of the war did a total business of \$4,700,000,000. In peace times its average annual expenditures were \$14,000,000.

Large as these figures seem, astounding as this rate of expansion must appear, they give only a scant idea of the difficulties faced by the ordnance department in its year of preparatory work. Ordnance is a highly technical subject. The few who knew it thoroughly have had the double task of furnishing ideas and perfecting designs and of imparting their knowledge to others. They had to be workers and teachers in the same day. The old ordnance department of less than 100 officers was split up into a gun-carriage division, a cannon division, a small-arms division, and so on, each division being charged with the design and production of some part of ordnance material. Manufacture of ordnance material was carried on almost entirely in government arsenals. The problem of production was not difficult. A few officers could follow a gun through from the day that it was first sketched out on paper until it was turned over to a field artillery regiment. But when the ordnance department was called upon to put through a program involving expenditures and contracts totaling more than \$4,500,000,000 in a single year, the old way of doing business had to end and the old form of organization had to be abandoned.

Organized the Forces.

To meet the new problem, most of the ordnance experts—the regular army officers—were assembled in what is known as the engineering bureau of the ordnance department, and to this bureau was given the task of designing ordnance material. How much designing work there is to be done in the ordnance department is suggested by the fact that 10,000 blue prints a day are turned out in Washington for the information of manufacturers of ordnance material.

The next big task of the ordnance department, after designing the material, was to place contracts and purchase orders. It was extremely difficult to find plants where ordnance ma-

terial could be made, and in a great many cases it was necessary to have factories built, or to have them equipped throughout with new machinery and tools. Sometimes the ordnance department could not find anything more to begin with than a group of men who knew manufacturing methods. It would persuade them to undertake the making of some part, would finance them in building a plant and in buying machinery, and then would set them at work manufacturing the thing needed in the war program. It is clear that the work of placing contracts and orders on so large a scale is an industrial rather than a military function. Consequently an almost entirely civilian personnel was selected for the procurement division, men who were experienced in the lines of industry affected, as, for instance, experts in shell industry, in explosives, machine tools, textiles, etc.

The orders placed, it was next necessary to follow them up in each of the more than 1,000 munitions factories engaged upon ordnance work. To do this, and to force quick production, a production division was organized which has representatives in every plant and which is responsible for all production of material. This division, too, is made up almost entirely of civilians commissioned for the period of the war. An inspection division has the duty of making sure that guns and shells are up to specifications. After the material has been manufactured, inspected and accepted by the United States government, it is next necessary to supply it to troops in the training camps in this country and to the American expeditionary forces in France.

Numerous Articles Required.

The extremely difficult problem of the supply division of the ordnance department is readily understood when it is known that there are more than 100,000 different articles which must be furnished to our fighting forces and which must be distributed under the most difficult circumstances without a hitch. These 100,000 articles range from the small striker or firing pin of a rifle or a little nut or bolt to a mammoth railway mount for a 16-inch howitzer. Some of the artillery carriages have as many as 7,000 parts and it is the duty of the ordnance department to repair and maintain such material.

The rifle is the ready weapon of the infantryman. Owing to the changed conditions of modern warfare, it does not retain the extraordinary place of importance it once held. It is still, however, the principal standby of the American soldier, and the maintenance of an adequate reserve of rifles is, therefore, a matter of much concern.

Have we enough rifles for our rifle-carrying soldiers? We have. What is more, we are able to outfit them with the very best type of rifle known in the munitions world. For a number of years before the war the superiority of the United States model of 1903 (popularly called the Springfield) was well recognized. In five international meets, extending over a period of five years, our riflemen, using the Springfield, won first place every time, defeating the marksmen of 15 nations. Most of our opponents were armed with types of the Mauser rifle, which is used by the Germans. The new United States model of 1917 (popularly called the modified Enfield) is substantially the equivalent of the Springfield. It was decided to manufacture the modified Enfield because our American factories, which had accepted large contracts from Great Britain, could turn this weapon out in larger quantities than the Springfield, which had been made only at government arsenals.

Our rate of rifle production is today 50,000 per week. Every three months we are now making as many rifles as we had altogether at the beginning of the war. Yet that original supply (600,000 Springfield and 100,000 rifles of other sorts) was, from the start, sufficient to equip the rifle-carrying men of an army of a million. We can congratulate ourselves about rifles.

Knottiest Problem of All.

But artillery manufacture was the knottiest problem of all. It is almost impossible to make the layman understand how difficult it is to manufacture a piece of modern artillery. Perhaps that was the reason, or one of the reasons, why public opinion in this country failed to listen to the warnings of ordnance experts and provide adequate appropriations for artillery manufacture years ago. For the last 12 years the war department has been telling congress that artillery could not be made quickly after the outbreak of war. A year would be required to begin deliveries on any guns in quantity, these experts told congress. To provide for artillery manufacture on a vast scale would take even longer, because in that event literally scores of new plants would have to be built, millions of dollars' worth of machine tools and equipment would have to be provided and thousands upon thousands of men would have to be taught a line of work unknown to them at the outset. That is precisely what the ordnance department has been doing since the declaration of war. It has been creating manufacturing facilities to make artillery. Arrangements were made to provide our troops with artillery of British and French manufacture while our own manufacturing resources were being developed. Although, thus far, this reliance upon the resources of our allies has proved satisfactory, naturally the war department is anxious to gain independence in its artillery supply at the earliest possible moment, and that is the task upon which the energies of the ordnance department are now concentrated. Every possible effort is being made to expedite production of artillery.

Proposed Amendments to the Constitution of Missouri.

FIRST CONSTITUTIONAL AMENDMENT.

Joint and concurrent resolution submitting to the qualified voters of the state of Missouri a proposal to repeal section 11 of article 10 of the Constitution of Missouri, relating to revenue and taxation, and enacting a new section 11 to be known as section 11 of article 10 of the Constitution of Missouri.

BE IT RESOLVED BY THE SENATE, THE HOUSE OF REPRESENTATIVES CONCURRING THEREIN:

That at the general election to be held in this state on the first Tuesday after the first Monday in November, 1918, there shall be submitted to the qualified voters of the state of Missouri a proposal to repeal section 11 of article 10 of the Constitution of Missouri, relating to revenue and taxation, and to enact a new section 11 in lieu thereof as follows:

Section 1. That section 11 of article 10 of the Constitution of Missouri is hereby repealed.

Sec. 2. That in lieu of section 11 of article 10 of the Constitution of Missouri hereby repealed, there be enacted the following new section to be known as section 11, article 10, viz:

Sec. 11. Taxes for county, city, town and school purposes may be levied on all subjects and objects of taxation; but the valuation of property for such purposes shall not exceed the valuation of the property for state and county purposes. For county purposes the annual rate on property, in counties having six million dollars or more, shall not exceed five cents on the hundred dollars valuation; in counties having six million dollars and under ten million dollars, said rate shall not exceed four cents on the hundred dollars valuation; in counties having ten million dollars and under thirty million dollars, said rate shall not exceed five cents on the hundred dollars valuation; in counties having thirty million dollars and under fifty million dollars, said rate shall not exceed six cents on the hundred dollars valuation; in counties having fifty million dollars and under one hundred million dollars, said rate shall not exceed seven cents on the hundred dollars valuation; in counties having one hundred million dollars and under two hundred million dollars, said rate shall not exceed eight cents on the hundred dollars valuation; in counties having two hundred million dollars and under three hundred million dollars, said rate shall not exceed nine cents on the hundred dollars valuation; in counties having three hundred million dollars and under four hundred million dollars, said rate shall not exceed ten cents on the hundred dollars valuation; in counties having four hundred million dollars and under five hundred million dollars, said rate shall not exceed eleven cents on the hundred dollars valuation; in counties having five hundred million dollars and under one billion dollars, said rate shall not exceed twelve cents on the hundred dollars valuation; in counties having one billion dollars and under two billion dollars, said rate shall not exceed thirteen cents on the hundred dollars valuation; in counties having two billion dollars and under three billion dollars, said rate shall not exceed fourteen cents on the hundred dollars valuation; in counties having three billion dollars and under four billion dollars, said rate shall not exceed fifteen cents on the hundred dollars valuation; in counties having four billion dollars and under five billion dollars, said rate shall not exceed sixteen cents on the hundred dollars valuation; in counties having five billion dollars and under six billion dollars, said rate shall not exceed seventeen cents on the hundred dollars valuation; in counties having six billion dollars and under seven billion dollars, said rate shall not exceed eighteen cents on the hundred dollars valuation; in counties having seven billion dollars and under eight billion dollars, said rate shall not exceed nineteen cents on the hundred dollars valuation; in counties having eight billion dollars and under nine billion dollars, said rate shall not exceed twenty cents on the hundred dollars valuation; in counties having nine billion dollars and under ten billion dollars, said rate shall not exceed twenty-one cents on the hundred dollars valuation; in counties having ten billion dollars and under eleven billion dollars, said rate shall not exceed twenty-two cents on the hundred dollars valuation; in counties having eleven billion dollars and under twelve billion dollars, said rate shall not exceed twenty-three cents on the hundred dollars valuation; in counties having twelve billion dollars and under thirteen billion dollars, said rate shall not exceed twenty-four cents on the hundred dollars valuation; in counties having thirteen billion dollars and under fourteen billion dollars, said rate shall not exceed twenty-five cents on the hundred dollars valuation; in counties having fourteen billion dollars and under fifteen billion dollars, said rate shall not exceed twenty-six cents on the hundred dollars valuation; in counties having fifteen billion dollars and under sixteen billion dollars, said rate shall not exceed twenty-seven cents on the hundred dollars valuation; in counties having sixteen billion dollars and under seventeen billion dollars, said rate shall not exceed twenty-eight cents on the hundred dollars valuation; in counties having seventeen billion dollars and under eighteen billion dollars, said rate shall not exceed twenty-nine cents on the hundred dollars valuation; in counties having eighteen billion dollars and under nineteen billion dollars, said rate shall not exceed thirty cents on the hundred dollars valuation; in counties having nineteen billion dollars and under twenty billion dollars, said rate shall not exceed thirty-one cents on the hundred dollars valuation; in counties having twenty billion dollars and under twenty-one billion dollars, said rate shall not exceed thirty-two cents on the hundred dollars valuation; in counties having twenty-one billion dollars and under twenty-two billion dollars, said rate shall not exceed thirty-three cents on the hundred dollars valuation; in counties having twenty-two billion dollars and under twenty-three billion dollars, said rate shall not exceed thirty-four cents on the hundred dollars valuation; in counties having twenty-three billion dollars and under twenty-four billion dollars, said rate shall not exceed thirty-five cents on the hundred dollars valuation; in counties having twenty-four billion dollars and under twenty-five billion dollars, said rate shall not exceed thirty-six cents on the hundred dollars valuation; in counties having twenty-five billion dollars and under twenty-six billion dollars, said rate shall not exceed thirty-seven cents on the hundred dollars valuation; in counties having twenty-six billion dollars and under twenty-seven billion dollars, said rate shall not exceed thirty-eight cents on the hundred dollars valuation; in counties having twenty-seven billion dollars and under twenty-eight billion dollars, said rate shall not exceed thirty-nine cents on the hundred dollars valuation; in counties having twenty-eight billion dollars and under twenty-nine billion dollars, said rate shall not exceed forty cents on the hundred dollars valuation; in counties having twenty-nine billion dollars and under thirty billion dollars, said rate shall not exceed forty-one cents on the hundred dollars valuation; in counties having thirty billion dollars and under thirty-one billion dollars, said rate shall not exceed forty-two cents on the hundred dollars valuation; in counties having thirty-one billion dollars and under thirty-two billion dollars, said rate shall not exceed forty-three cents on the hundred dollars valuation; in counties having thirty-two billion dollars and under thirty-three billion dollars, said rate shall not exceed forty-four cents on the hundred dollars valuation; 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in counties having forty billion dollars and under forty-one billion dollars, said rate shall not exceed fifty-two cents on the hundred dollars valuation; in counties having forty-one billion dollars and under forty-two billion dollars, said rate shall not exceed fifty-three cents on the hundred dollars valuation; in counties having forty-two billion dollars and under forty-three billion dollars, said rate shall not exceed fifty-four cents on the hundred dollars valuation; in counties having forty-three billion dollars and under forty-four billion dollars, said rate shall not exceed fifty-five cents on the hundred dollars valuation; in counties having forty-four billion dollars and under forty-five billion dollars, said rate shall not exceed fifty-six cents on the hundred dollars valuation; in counties having forty-five billion dollars and under forty-six billion dollars, said rate shall not exceed fifty-seven cents on the hundred dollars valuation; in counties having forty-six billion dollars and under forty-seven billion dollars, said rate shall not exceed fifty-eight cents on the hundred dollars valuation; in counties having forty-seven billion dollars and under forty-eight billion dollars, said rate shall not exceed fifty-nine cents on the hundred dollars valuation; in counties having forty-eight billion dollars and under forty-nine billion dollars, said rate shall not exceed sixty cents on the hundred dollars valuation; in counties having forty-nine billion dollars and under fifty billion dollars, said rate shall not exceed sixty-one cents on the hundred dollars valuation; in counties having fifty billion dollars and under fifty-one billion dollars, said rate shall not exceed sixty-two cents on the hundred dollars valuation; in counties having fifty-one billion dollars and under fifty-two billion dollars, said rate shall not exceed sixty-three cents on the hundred dollars valuation; in counties having fifty-two billion dollars and under fifty-three billion dollars, said rate shall not exceed sixty-four cents on the hundred dollars valuation; in counties having fifty-three billion dollars and under fifty-four billion dollars, said rate shall not exceed sixty-five cents on the hundred dollars valuation; 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in counties having sixty-eight billion dollars and under sixty-nine billion dollars, said rate shall not exceed eighty cents on the hundred dollars valuation; in counties having sixty-nine billion dollars and under seventy billion dollars, said rate shall not exceed eighty-one cents on the hundred dollars valuation; in counties having seventy billion dollars and under seventy-one billion dollars, said rate shall not exceed eighty-two cents on the hundred dollars valuation; in counties having seventy-one billion dollars and under seventy-two billion dollars, said rate shall not exceed eighty-three cents on the hundred dollars valuation; in counties having seventy-two billion dollars and under seventy-three billion dollars, said rate shall not exceed eighty-four cents on the hundred dollars valuation; in counties having seventy-three billion dollars and under seventy-four billion dollars, said rate shall not exceed eighty-five cents on the hundred dollars valuation; in counties having seventy-four billion dollars and under seventy-five billion dollars, said rate shall not exceed eighty-six cents on the hundred dollars valuation; 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in counties having eighty-nine billion dollars and under ninety billion dollars, said rate shall not exceed one hundred and one cents on the hundred dollars valuation; in counties having ninety billion dollars and under ninety-one billion dollars, said rate shall not exceed one hundred and two cents on the hundred dollars valuation; in counties having ninety-one billion dollars and under ninety-two billion dollars, said rate shall not exceed one hundred and three cents on the hundred dollars valuation; in counties having ninety-two billion dollars and under ninety-three billion dollars, said rate shall not exceed one hundred and four cents on the hundred dollars valuation; in counties having ninety-three billion dollars and under ninety-four billion dollars, said rate shall not exceed one hundred and five cents on the hundred dollars valuation; in counties having ninety-four billion dollars and under ninety-five billion dollars, said rate shall not exceed one hundred and six cents on the hundred dollars valuation; 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in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed one hundred and thirteen cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed one hundred and fourteen cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed one hundred and fifteen cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed one hundred and sixteen cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed one hundred and seventeen cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed one hundred and eighteen cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed one hundred and nineteen cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed one hundred and twenty cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed one hundred and twenty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed one hundred and twenty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed one hundred and twenty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed one hundred and twenty-four cents on the hundred dollars valuation; 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in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed one hundred and thirty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed one hundred and thirty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed one hundred and thirty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed one hundred and thirty-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed one hundred and thirty-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed one hundred and thirty-six cents on the hundred dollars valuation; 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in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed one hundred and sixty-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed one hundred and sixty-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed one hundred and sixty-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed one hundred and seventy cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed one hundred and seventy-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed one hundred and seventy-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed one hundred and seventy-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed one hundred and seventy-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed one hundred and seventy-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed one hundred and seventy-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed one hundred and seventy-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed one hundred and seventy-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed one hundred and seventy-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed one hundred and eighty cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed one hundred and eighty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed one hundred and eighty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed one hundred and eighty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed one hundred and eighty-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed one hundred and eighty-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed one hundred and eighty-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed one hundred and eighty-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed one hundred and eighty-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed one hundred and eighty-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed one hundred and ninety cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed one hundred and ninety-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed one hundred and ninety-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed one hundred and ninety-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed one hundred and ninety-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed one hundred and ninety-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed one hundred and ninety-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed one hundred and ninety-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed one hundred and ninety-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed one hundred and ninety-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed two hundred and eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed two hundred and nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred and ten cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and eleven cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and twelve cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and thirteen cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and fourteen cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and fifteen cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and sixteen cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and seventeen cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed two hundred and eighteen cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed two hundred and nineteen cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred and twenty cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and twenty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and twenty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and twenty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and twenty-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and twenty-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and twenty-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and twenty-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed two hundred and twenty-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed two hundred and twenty-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred and thirty cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and thirty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and thirty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and thirty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and thirty-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and thirty-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and thirty-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and thirty-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed two hundred and thirty-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed two hundred and thirty-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred and forty cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and forty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and forty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and forty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and forty-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and forty-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and forty-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and forty-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed two hundred and forty-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed two hundred and forty-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred and fifty cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and fifty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and fifty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and fifty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and fifty-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and fifty-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and fifty-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and fifty-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed two hundred and fifty-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed two hundred and fifty-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred and sixty cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and sixty-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and sixty-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and sixty-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and sixty-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and sixty-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and sixty-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and sixty-seven cents on the hundred dollars valuation; in counties having one hundred and six billion dollars and under one hundred and seven billion dollars, said rate shall not exceed two hundred and sixty-eight cents on the hundred dollars valuation; in counties having one hundred and seven billion dollars and under one hundred and eight billion dollars, said rate shall not exceed two hundred and sixty-nine cents on the hundred dollars valuation; in counties having one hundred and eight billion dollars and under one hundred and nine billion dollars, said rate shall not exceed two hundred and seventy cents on the hundred dollars valuation; in counties having one hundred and nine billion dollars and under one hundred and ten billion dollars, said rate shall not exceed two hundred and seventy-one cents on the hundred dollars valuation; in counties having one hundred and ten billion dollars and under one hundred and one billion dollars, said rate shall not exceed two hundred and seventy-two cents on the hundred dollars valuation; in counties having one hundred and one billion dollars and under one hundred and two billion dollars, said rate shall not exceed two hundred and seventy-three cents on the hundred dollars valuation; in counties having one hundred and two billion dollars and under one hundred and three billion dollars, said rate shall not exceed two hundred and seventy-four cents on the hundred dollars valuation; in counties having one hundred and three billion dollars and under one hundred and four billion dollars, said rate shall not exceed two hundred and seventy-five cents on the hundred dollars valuation; in counties having one hundred and four billion dollars and under one hundred and five billion dollars, said rate shall not exceed two hundred and seventy-six cents on the hundred dollars valuation; in counties having one hundred and five billion dollars and under one hundred and six billion dollars, said rate shall not exceed two hundred and seventy-seven cents on the hundred dollars valuation; in counties having one hundred